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**The Crystal Structure of the Nitrogen Regulation Fragment of the Yeast Prion Protein Ure2p**

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**ABSTRACT:** The yeast nonchromosomal gene [URE3] is due to a prion form of the nitrogen regulatory protein Ure2p. It is a negative regulator of nitrogen catabolism and acts by inhibiting the transcription factor Gln3p. Ure2p residues 1-80 are necessary for prion generation and propagation. The C-terminal fragment retains nitrogen regulatory activity, albeit somewhat less efficiently than the full-length protein, and it also lowers the frequency of prion generation. The crystal structure of this C-terminal fragment, Ure2p(97-354), at 2.3 Å resolution is described here. It adopts the same fold as the glutathione S-transferase superfamily, consistent with their sequence similarity. However, Ure2p(97-354) lacks a properly positioned catalytic residue that is required for S-transferase activity.